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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHEN, YUAN L

ART UNIT

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2854

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/555,956	Applicant(s) KRUMPELMANN ET AL.	
	Examiner Yuan L. Chen	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/2008 has been entered.

Specification

2. The disclosure is objected to because of the following informalities: "signal line 6" in page 5 line 6 of Amendments to the Specification should be changed to --signal line 8--.

The disclosure is objected to because it lacks the support for the subject matter "a sequence of magnetizable individual elements" and it is not clear how they function with the rest of the rotary printing machine as disclosed.

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities:

"a" in line 5 should be changed to --the-- and "the printing mandrel" in the last 3rd lines should be changed to --the mandrel--, and

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 - 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (Pub. No.: EP 1205300A1) in view of Dimyan et al. (US patent No. 4176404).

With respect to newly amended Claim 1, Ikeda et al. disclose in Figs. 3, and 7 - 9 and [0039] lines 1 – 10: a color rotary printing machine (Fig. 8), comprising:

one printing plate support ([0004] lines 1 - 4) each is assigned to colors (black, yellow, red and blue) to be transferred on to a printing plate (on cylindrical surface), said plate support supporting the printing plate and being attached to a mandrel or cylinder (82, 72, 62 and 52) of a rotary printing machine in order to transfer the printing image onto the printing substrate (93 in Fig. 8),

register devices (4, 5 in Fig. 3) that determine positions ([0062] lines 3 – 6 and [0063] lines 6 - 10) of the printing plates with respect to one another, the register devices (4, 5) including sensors (4 in Figs. 3 and 7 as well as 91 in Fig. 9) that determine positions of the printing plate support in the printing machine, and the register

Art Unit: 2854

devices (4, 5) providing information regarding the position of the printing plate support before, or at the start of, or during the print process (operation state) in conjunction with the sensors (4, 91) based on which control signals are provided ([0039] lines 1 - 10),

the register device (4, 5) including a control device (103 in Fig. 7) with which control signals are generated based on the positions of the printing plate support determined by the sensors (4, 91) with which drives (84 in Fig. 3) of the mandrels or the print cylinders (73) are controllable (by 103 in Fig. 7 and [110] lines 4 - 10) using said control signals such that phase positions of the mandrels or the print cylinders (73) in relation to one another is changed and a register accuracy of the print increases ([0015] lines 4 - 6),

each printing plate support including at least one information carrier (90 in Fig. 9 and [0010] lines 1 - 3) from which information is removed using the sensor (4, 91), the information that is read out being automatically suitable for determining the relative position of the printing plate support on the mandrel or on the print cylinder (73) of the rotary printing machine ([0009] lines 3 - 6), and the information carrier (90) being arranged outside the mandrel ([0009] lines 1 - 3) and between the print image and an edge of the printing plate support that is turned toward a front end of the mandrel or of the print cylinder (73).

Ikeda et al. teach all the limitations of Claim 1 except for the information carrier that includes a sequence of magnetizable individual elements from which information is removed by the sensor.

Art Unit: 2854

However, Dimyan et al. teach in Figs. 1 - 2 as well as column 3 lines 42 – 44, column 2 lines 49 – 56, column 4 lines 28 – 34, column 6 lines 28 -32 and column 7 lines 14 - 29: the information carrier that includes a sequence of magnetizable individual elements (14, 16 and 22 in Fig. 1) that is read out magnetically by detector (74/75) in Fig. 2.

Therefore it would have be obvious to a person of ordinary skill in the art at the time of invention to have modified Ikeda et al.'s color rotary printing machine by using Dimyan et al's sequence of magnetizable individual elements in the information carrier to be read by a sensor for the purpose of increasing the information storage density capability to perform more complex operation.

The modification/combination meets all the limitation of Claim 1.

With respect to Claim 2, the modification/combination meets all the limitation of Claim 2 (in Fig. 9 of Ikeda et al.): the multi-color rotary printing machine according to claim 1, wherein the information carrier (90) has an oblong shape whereby its long side that is essentially aligned in a peripheral direction of the printing plate support ([0009] lines 1 – 3).

With respect to Claims 3 and 9, the modification/combination meets all the limitation of Claims 3 and 9 (in Fig. 9 of Ikeda et al.): the multi-color rotary printing machine according to claim 1, wherein the information carrier (90) surrounds a periphery of the mandrel or of the cylinder (73) of the printing machine ([0009] lines 1 – 3).

With respect to newly amended Claims 4 and 10 - 11, the modification/comboination meets all the limitation of Claims 4 and 10 - 11 (in Figs. 1 - 2 and column 7 lines 14 - 29): the multi-color rotary printing machine, wherein the information stored on the information carrier (having a layer of magnetic materials) is magnetically readable by sensor 74/75.

With respect to newly amended Claims 5 and 12 - 14, the modification/comboination meets all the limitation of Claims 4 and 10 - 11 (Fig. 9 and [0009] lines 1 - 3): the information carrier (90) includes a magnetic tape (with a layer of magnetic materials or film as taught by Dimyan et al.).

With respect to newly amended Claim 6, the modification/comboination meets all the limitation of Claim 6 (in Figs. 3, and 7 - 9 of Ikeda et al.): process for setting up a multi-color rotary printing machine before and at start of a print process, comprising:

assigning one printing plate support ([0004] lines 1 - 4) each to colors (black, tallow, red and blue) to be transferred on to a printing plate (on cylindrical surface), said plate support supporting the printing plate;

attaching the printing plate supports to mandrel or cylinders (82, 72, 62 and 52) of the rotary printing machine in order to transfer the printing image onto the printing substrate (93 in Fig. 8);

determining with the register devices (4, 5 in Fig. 7) a position ([0062] lines 3 - 6 and [0063] lines 6 - 10) of the printing plates with respect to one another,

the register devices (4, 5) including sensors (4) that determine positions of the printing plate support in the printing machine and

Art Unit: 2854

the register devices (4, 5) providing information based on the positions of the printing plate supports determined by the sensors (4),

with control signals (arrow from 4 - 16) being derived based on the information and

the register device (4, 5) including a control device (103) that generates control signals based on the positions of the printing plate support determined by the sensors (4, 91);

using the control signals (103 – 104 – 84/64) to control drives (84 and 64 in Figs. 3 and 8) of the mandrels or of the print cylinders (73 and 53) in such a manner that a phase position of the mandrels or of the print cylinders (73 and 53) in relation to one another is changed,

so as to increase a register accuracy of the print ([0015] lines 4 - 6),

the printing plate supports each having at least one information carrier (90) that includes a sequence of magnetizable individual elements is removed (as taught by Dimyan et al.) using the sensor (4, 91); and

reading the information automatically (by 4, 91) and using the information to determine a relative position (by 16 in Fig. 7) of the print plate support on the mandrel or on the print cylinder of the rotary printing machine ([0039] lines 1 - 10),

with printing plates being used such that the information carrier (90) is arranged outside the printing plate (Fig. 9 and [0009] lines 3 – 6) and

between the print image and an edge of the printing plate support that is turned toward a front end of the mandrel or of the print cylinder (73).

With respect to newly amended Claim 7, the modification/combination meets all the limitation of Claim 7 (in Figs 3, and 7 - 9 of Ikeda et al.): process according to claim 6, wherein during the change of the relative phase position of the mandrels or the print cylinders (82, 72, 62 and 52 in Fig. 8), the printing plate supports ([0004] lines 1 - 4) rest in relation to the mandrels or print cylinders assigned thereto.

With respect to newly amended Claim 8, the modification/combination meets all the limitation of Claim 8 (in Figs. 3, and 7 - 9 of Ikeda et al.): process according to claim 7, wherein the multi-color rotary printing machine includes the printing plate support ([0004] lines 1 - 4) each is assigned to colors (black, yellow, red and blue) to be transferred on to a printing plate (on cylindrical surface), said plate support supporting the printing plate and

said printing plate support being attached to the mandrel or cylinder (72) of the rotary printing machine in order to transfer the printing image onto the printing substrate (93),

the rotary printing machine having the register devices (4, 5 in Fig. 7) that determine the positions of the printing plates with respect to one another and

the register devices (4, 5) having the sensors (4, 91) that determine the positions ([0062] lines 3 - 6) of the printing plate support in the printing machine and

the register devices (4, 5) providing the information regarding the positions of the printing plate support before, at the start of, or during the printing process ([0039] lines 1 - 7) in conjunction with the sensors (4, 91),

based on which the control signals (16 - 103 - 105 in Fig. 7) are provided,

the register devices (4, 5) having the control device (103 in Fig. 7) that generates the control signals based on the positions of the printing plate support determined by the sensors (4, 91) that controls the drives (64 and 84 in Fig. 8) of the mandrels or the of print cylinders (52, 62, 72 and 82) using said control signals such that the phase position of the mandrels or the print cylinders (52, 62, 72 and 82) in relation to one another is changed,

and the register accuracy of the print increases ([0015] lines 4 - 6),

with each of the printing plate supports containing that at least one information carrier (90 in Fig. 9 and [[0010] lines 1 - 3) from which the information is removed using the sensor (4, 91), with the information is read out automatically being suitable for determining the relative position of the printing plate support on the mandrel or on the print cylinder (72/73) of the rotary printing machine ([0009] lines 3 - 6), and

with the information carrier (90) being arranged outside ([0009] lines 1 - 3) the printing mandrel and between the print image and the edge of the printing plate support that is turned toward the front end of the mandrel or of the print cylinder (73 in Fig. 9).

With respect to newly amended Claim 15, the modification/combination meets all the limitation of Claim 15 (in Fig. 9 and (Fig. 9 and [0009] lines 1 - 3 of Ikeda et al): the information carrier (90) shape is rectangular.

With respect to newly amended Claim 16, the modification/combination meets all the limitation of Claims 16 (in Figs 3, and 8 - 9 of Ikeda et al.): a multi-color rotary printing machine, comprising:

Art Unit: 2854

a printing plate support ([0004] lines 1 - 4) that supports a printing plate (on cylindrical surface) and that is assigned to colors (black, yellow, red and blue) to be transferred onto the printing plate, the printing plate support being attached to a mandrel or a cylinder (82, 72, 62 and 52) of the machine in order to transfer a print image onto a print substrate (93 in Fig. 8) during a printing process; and

register devices (4, 5 in Fig. 7) that determine positions of the printing plates with respect to one another, the register devices (4, 5) including sensors (4 in Fig. 7 and 91 in Fig. 9) that determine positions of the printing plate support in the machine and the register devices (4, 5) providing information regarding the positions of the printing plate support before, at the start of, or during the printing process ([0039] lines 1 – 8) in conjunction with the sensors (4, 91) based on which control signals are provided, the register devices including a control device (103) that generates control signals based on the positions of the printing plate support determined by the sensors (4, 91) and with which drives (64 and 84 in Fig. 8) of the mandrels or the print cylinders (52, 62, 72 and 82) are controllable using said control signals such that a phase position of the mandrels or the print cylinders (52, 62, 72 and 82) in relation to one another is changed and a register accuracy of the print increases ([0015] lines 4 – 6),

each printing plate support including at least one information carrier (90 in Fig. 9) from which information is removed using the sensor (91), the information carrier (90) having a sequence of magnetizable individual elements, with the information that is removed being magnetically readable (as taught by Dimyan et al.) and being

Art Unit: 2854

automatically adapted for determining (16 in Fig. 7) the relative position of the printing plate support on the mandrel or on the print cylinder (72/73), and

the information carrier (90) being arranged outside the printing mandrel and between the print image and an edge of the printing plate support that is turned toward a front end of the mandrel or of the print cylinder (Fig. 9).

The modification/combination meets all the limitations of Claim 16.

With respect to newly amended Claim 17, the modification/combination meets all the limitation of Claim 17 (in Fig. 9 of Ikeda et al.): the multi-color rotary printing machine according to claim 16, wherein the information carrier (90) has a rectangular shape with a long side that is substantially aligned in a peripheral direction of the printing plate support ([0009] lines 1 - 3).

Conclusions

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference of Chang (Patent No.: US 4042916) discloses the bubble propagation path includes sequence of magnetizable individual elements such as T and bar elements.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuan L. Chen whose telephone number is 571-270-3799. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00 PM EST.

Art Unit: 2854

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Nguyen can be reached on 571-272-1753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yc/

/Ren L Yan/

Primary Examiner, Art Unit 2854